Response under 37 C.F.R. 1.116
- Expedited Examining Procedure -
Examining Group 3726

H10167AJA

Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Jerry A. Pickering, et al

FUSER MEMBER AND FUSER MEMBER SURFACE LAYER

Serial No. 10/691,778

Filed 23 October 2003

Group Art Unit: 3726

Examiner: Sarang Afzali

Confirmation No. 7165

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants request review of the final rejection in the above identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal. The review is requested based on the following arguments.

ARGUMENTS

Claims 1-65, 67-70, 72-79, and 82-88 are pending in the application. Claims 1-63, 67, 68, 72-79, 82-85, and 88 have been withdrawn from consideration. Claims 64, 65, 69, 70, 86, and 87 have been rejected.

Claims 64, 65, 69, 70, 86, and 87 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Eddy et al. in view of Donnelley et al. The Examiner states that Eddy et al. teach a fuser member having a base, and a fusing surface layer comprising a fluoroelastomer and filler particles with a modulus greater than the modulus of the fluoroelastomer. The filler is made of aluminum with a mean particle diameter of about 1 to 100 microns. While Eddy et al does not teach plastic filler particles such

as polytetrafluoroethylene, it is the conclusion of the Examiner that "It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Eddy et al. with plastic filler particles such as polytetrafluoroethylene, in light of the teachings of Donnelley et al., in order to reduce offset and mechanical breakdown as suggested by Donnelley et al." This rejection represents clear error, for at least the following reasons.

Pending claim 64 is directed towards a fuser member for a toner fusing system or process comprising a fusing surface layer comprising (i) a fluoroelastomer and (ii) polytetrafluoroethylene filler particles with a mean particle diameter of at least about 50 microns. As shown in Table 2 of the instant application, it is shown in Examples 5 and 6 that superior gloss and contamination numbers result for use of such relatively large particulate polytetrafluoroethylene filler particles dispersed in a fluorelastomer layer when compared to use of relatively smaller inorganic particulate filler employed in Examples 1 and 2, similar to the use of alumina particles disclosed in Eddy et al.. This unexpected result is clearly not shown, taught or mentioned in Eddy. Eddy, in fact, does not in any way teach or suggest the use of such particulate polytetrafluoroethylene particles dispersed in a fluoroelaster surface layer, but rather only suggests polytetrafluoroethylene and fluoroelastomers as alternative fluoroplastics for use in the outer fusing layer of the fuser member thereof (see, e.g., col. 5, lines 15-60). Thus, Eddy et al clearly does not suggest use of polytetrafluoroethylene particles of the claimed size for use in a flouroeleastomer layer to provide the enabling the gloss advantage taught by applicants.

Donnelly et al does not overcome such basic deficiency of Eddy et al, as rather than teach the use of such relatively large mean particle diameter polytetrafluoroetheylene particles for any reason (and further, so as to enable a gloss advantage when using a fuser element comprising a fluoroelastomer surface layer as taught in the present invention), Donnely et al only suggests the use of Teflon for reinforcing silicone elastomer fusing blankets, where the Teflon and silicone elastomer are mixed under high shear so as to result in threads or fibers of Teflon being formed to provide a fiber structure within the silicone elastomer, rather than relatively large mean particle diameter particles as required for the present invention. It is taught at col. 5, lines 55-70, e.g., that the critical

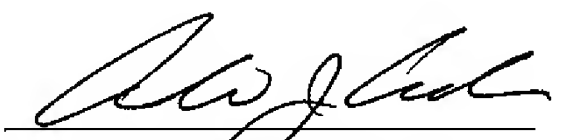
reinforcing effect is only obtained where the Teflon and silicone elastomer are thoroughly intermixed by milling, and that the desired reinforcing properties are not obtained by simply mixing the fluorocarbon resin with a silicone gum without milling. The present invention, on the other hand, clearly teaches in paragraph [0135] that in order to retain the desired particle size of polytetrafluorethylene particles as employed in the invention, they are not dry compounded with the fluoroelastomer. Thus, the particles as employed in the present invention and that of Donnelly are clearly distinct, and even if one were to disregard the fact that Donnelly is directed specifically towards silicone elastomer layers, the present invention would not be obtained when combining the actual teachings of Donnelly and Eddy, as there is no support for the Examiner's statement that Donnelly et al teaches that it is well known to add plastic filler such as polytetrafluoroethylene with specified sizes to an elastomer layer. The Examiner has entirely failed to address these contradictory teachings. Thus, the claimed invention (directed towards the use of relatively large polytetraflouroethylene particles in a fluoroelasomer layer to provide gloss advantages) is clearly not taught or suggested by Donnelly et al (directed towards Teflon fibers or strands in a silicone elastomer layer to reinforce the silicone elatomer). A prima facie case of obvious has accordingly clearly not been established, and withdrawal of this rejection upon review is respectfully urged. The Examiner has further not addressed the unexpected showing of the instant application, as shown in Table 2 for Examples 5 and 6 that superior gloss and contamination numbers result for use of such relatively large particulate polytetrafluoroethylene filler particles dispersed in a fluorelastomer layer when compared to use of relatively smaller inorganic particulate filler employed in Examples 1 and 2, similar to the use of alumina particles disclosed in Eddy et al.. Thus, even to the extent a prima facie case of obviousness may be alleged, the unexpected showing clearly rebuts such alleged case of prima facie obviousness.

Further, each of Eddy, Donnelly and the present invention employ different combinations of materials and elements to provide different effects, and the proposed modifications of the Eddy et al and Donnelly et al references as proposed by the Examiner would in fact defeat the basic purpose of the individual references (i.e., Eddy et al is specifically directed towards use of alumina filler particles, while Donnelly et al is specifically directed towards silicone elastomer

layer). It is accordingly clear that the proposed combination of the applied references clearly does not establish a prima facie case of obviousness, and that rather the proposed combination is proposed only with the improper application of hindsight based on applicants' own teachings.

In view of the above, it follows that the Examiner has clearly not established a *prima facie* case of obvious of the subject matter of the claims. Rather, the rejections of claims 64, 65, 69, 70, 86, and 87 is clearly in error, and withdrawal of such rejection is courteously solicited.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.